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ABSTRACT

A study examined stages and objectives of a systematic desensitization (SD) program and its effects on subject reported apprehension levels and perceived benefits and behavior changes toward public speaking. Subjects, 19 freshmen and sophomore university students, were administered the Personal Report of Communication Apprehension-24 (PRCA-24). Subjects scoring above average in communication apprehension participated in the SD program while other students participated in specific activities to lessen negative cognitive appraisal and skills deficit. During six consecutive weeks subjects listened to six SD audiotapes contained in "Building Speech Confidence: A Program for Coping with Speech Anxiety." The program used behavior therapy techniques in a pattern of muscle relaxation exercises, visualization activities acting as a substitute for preparing and delivering speeches, and a combination of relaxation and visualization designed to enable subjects to reduce fear of public speaking. A post PRCA-24 was administered after program completion. Results showed significant differences between pre- and posttest PRCA-24 scores for subjects in the SD program. Content coding revealed that the program was perceived as relaxing, helpful, of assistance in speaking and in visualizing fearful scenes. Perceived behavioral changes included ability to control anxiety when speaking, ability to relax, change in attitude, ability to visualize, and ability to speak more often. (Three tables of data and 23 references are attached.) (MM)

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Abstract

The stages and objectives of one systematic desensitization (SD) program were examined to determine perceived benefits and behavioral changes toward communication apprehension. Significiant differences were found between pre and posttest PRCA-24 scores for apprehensive subjects in a basic speech communication course as a result of a six-week audio-taped SD program. Content coding revealed perceived benefits of the program to be: relaxing, helpful, assists in speaking, assists by visualizing fearful scenes. Perceived behavorial changes included: ability to control anxiety when speaking, ability to relax, change in attitude, ability to visualize, and ability to speak more often. The findings are applied to speech pedagogy.

Effects of Systematic Desensitization in the Alleviation of Communication Apprehension

Introduction

Communication apprehension, the fear of oral communication with another person or persons, it has been estimated, affects as much as 20% of the general population. This inhibiting condition also appears to be negatively related to personality characteristics, learning styles, and academic achievement, as well as to affect choices of occupation, living locations, and voting preferences (McCroskey, 1977). Of the many ways people have attempted to deal with various manifestations of communication apprehension, three methods have proven useful: systematic desensitization (SD), cognitive restructuring, and skills development (Glaser, 1981; Watson & Dodd, 1984).

Systematic desensitization, a behavior therapy, appears particularly useful in lowering communication apprehension associated with previous conditioning (Goss, Thompson & Olds, 1978: Hemme & Boor, 1976; McCroskey, Ralph, & Barrick, 1970). The reasons for the compatibility of this technique, developed by psychologists for the alleviation of certain phobias (Wolpe & Lazaurs, 1966) with problems of communication apprehension remain largely unexplored. Moreover, since the technique of SD does not incorporate speech communication skills in the reduction of communication apprehension it would be useful to speech educators to know the specific behaviors that may be altered through this process. The questions explored in this report are (1) What are the benefits of SD that cause the technique to be effective in the reduction of communication apprehenison? (2) What perceived behaviors, altered through the use of

SD, contribute to lowered communication apprehension? (3) Where and when during the progression of the program did these perceived behavior changes occur? (4) What practical application do these findings have for regular and apprehensive speech pedagogy?

Previous Scholarship

In demonstrating that pulse rate and blood pressure were diminished by deep muscle relaxation, Jacobson (1938) also found that the autonomic effects that accompany deep muscle relaxation are dramatically opposed to those characteristic of anxiety. By presenting the stimulus to a fully relaxed individual during weak anxiety responses, the amount of subjective anxiety becomes less and less until it is for all intents and purposes completely diminished. The technique involves three separate sets of operations: training in deep muscle relaxation, the construction of anxiety hierarchies, and the counterposing of relaxation and anxiety-evoking stimuli from the hierarchies.

Paul summarized controlled studies with various phobias and found desensitization to be more effective in fourteen of eighteen cases over specific attention-placebo treatment, relaxation only, no-treatment control, no-contact control, and insight-oriented treatment (Franks, 1969). In 1966, Paul and Shannon presented the first factorial study of systematic desensitization with interpersonal-performance anxiety as a target treatment. The results of the study reportedly established specific cause-effect relationships between systematic desensitization and change in severely maladaptive anxiety, which was a central life problem among the treated subjects.

Using subjects whose communication apprehension was assessed by the Personal Report of Communication Apprehension (McCroskey, 1970),

McCroskey, Ralph, and Barrick (1970) found that SD can significantly reduce students' anxiety to speech situations and that speech educators with proper training can successfully apply the relevant techniques. While treating 541 university students, McCroskey (1972) later reported the use of SD to generalize to more normal academic settings such as the larger college environment.

Phillips, Johnson, and Geyer (1972) found evidence that the effectiveness of SD does not depend on the presence of a live therapist. Basing their study upon this assumption, Lohr and McManus (1975) compared and found no difference between the effectiveness of therapist treatment and audio-taped sessions of SD in the reduction of communication apprehension.

Various studies show the use of SD as a treatment to have become an accepted method of helping students deal with communication apprehension (Glaser, 1981; Hoffman & Sprague 1982; Foss, 1982; Friedrich & Goss, 1984; Richmond & McCroskey, 1985). Other than subject reported reduction of communication apprehension, however, little is known about the specific effects of SD.

Method

Subjects - Freshmen and sophomore university students were voluntarily enrolled in a basic speech communication course designed to overcome fear of communicating. To provide appropriate instruction for different types of speech concern, students were given inventories to assess communication apprehension, negative cognitive appraisal, and skills deficit (Watson, 1986). Eleven (10 males and one female) of 19 students in the class scored in the above average range on the Personal Report of Communication Apprehension-24 (McCroskey, 1982), used to assess

fear of communicating associated with communication apprehension. Scores on the PRCA-24 may range from 24 to 124, with scores above 86 considered above average in communication apprehension. These students participated in a program only of systematic desensitization while other students participated in specific activities to lessen negative cognitive appraisal and skills deficit. Since the usefulness of systematic desensitization in reducing communication apprehension has been demonstrated in several studies, the purpose of this study was not to compare the effects of systematic desensitizaion in reducing communication apprehension with other methods, but to determine the specific effects SD may have in the reduction of CA.

Instrument - PRCA-24, a Likert-type instrument, consists of 24 statements, each having a five point scale ranging from (1) "Strongly Agree" to (5) "Strongly Disagree." The items encompass such communication contexts as group discussion, meeting, conversation, and public speaking. Reliability estimates for the total score on the PRCA-24 have ranged from .92 to .97 (McCroskey & Beatty, 1986). Subjects again completed the PRCA-24 instrument at the end of the class.

Technique - To overcome conditioned apprehension about speaking, the students were asked to listen to tapes that describe a systematic desensitization program during six consecutive weeks prior to the public speaking unit of the course. Building Speech Confidence, A Program for Coping with Speech Anxiety (Lohr, 1976) consists of six audiotapes, each lasting approximately thirty minutes. The first tape, an orientation, explains the causes of speech anxiety and the treatment methods used in the program. The five additional tapes contain the actual muscle relaxation instructions and the visualization instructions, with the items

to be visualized arranged in an appropriate hierarchy.

The program is designed for junior and senior high school, college and university students. It is developed for students who are usually calm, but who become anxious about giving speeches, and not for those who experience general anxiety or who are anxious most of the time. The stages and objectives of this SD program are: the relaxation exercises designed to relax muscles and, thereby, prevent development of fear; the visualization activities that act as a substitute for preparing and delivering speeches; and a combination of relaxation and visualization to enable the subject to reduce fear of public speaking.

Procedure - The tapes were placed on reserve in the university library, and a quiet, private, comfortable room was provided for student use. The students received a booklet developed by the instructor which included the muscle relaxation exercises to be practiced twice daily and a fill-in chart for recording days/weeks of the relaxation practice. A page in the booklet for each of the six tapes required completion of statements beginning, "I feel the program generally is . . . ," and "As a result of the program, I think my behavior is/is not changing in these ways . . . ." The booklets were submitted for instructor review each Friday after students listened to the appropriate tape.

Analyses - To examine changes in apprehension levels and perceived benefits and behaviors, four analyses were performed. First, to determine significance of average change in scores, pre and post PRCA-24 scores were analyzed by a paired t-test. Second, responses to the sentences requiring completion were coded by the author and a psychology professor according to principles of content analysis discussed by Kerlinger (1973). Inter-coder agreement was consistent throughout. The thematic unit of

analysis was used and evaluative terms pertinent to the theme were grouped into categories. The statistical unit was the frequency of evaluative terms in each catagory. For the first item ("I feel the program generally is. . ."), evaluative terms were grouped into the larger categories of: "relaxing", "helpful", "assists in speaking", and "assists by visualizing". A specific evaluative term was assigned to the category "relaxing" if it included "tension relieving," "stress avoiding," "anxiety reducing," and "fear avoiding." The category, "helpful," included "worthwhile," "beneficial," "useful," "enjoyable." "Assists in speaking" included evaluative terms such as, "helped in preparing speeches," "assisted in delivery," and "increased concentration." Items consistent with "assists by visualizing" included "visualized being relaxed," "imagined preparing a speech," "combined relaxing and visualizing speaking," "visualizing other people watching me speak."

Third, for the second item ("I think my behavior is/is not changing in these way. . ."), responses were grouped into categories of: "ability to control anxiety when speaking," "ability to relax," "change in attitude," "ability to visualize," and "ability to speak more often." A specific evaluative term was assigned to "ability to control anxiety when speaking," if it included "less anxious about speaking," "calm when speaking," "helps avoid stuttering," and "can maintain composure when speaking." "Ability to relax," was described as "more relaxed," "less tension," "prepare myself for speaking by relaxing," "relax muscles." Evaluative terms assigned to "change in attitude" were "avoid unreasonable beliefs," "feel more confident in myself," "better outlook on life," and "more patience with people." For "ability to visualize," "visualize my speech and relax," "visualize being relaxed," and "visualize calm scenes"

were descriptors in the category. "Ability to speak more often" was described by "at ease when speaking to friends," "enjoys talking to people more," "speaking louder in front of a group," and "participate more in group conversation."

Fourth, to determine where and when behavior changes occurred, frequencies of behavior changes categorized as above were tabulated according to behaviors most mentioned during each tape session.

Results

Subject PRCA-24 scores were analyzed by a paired t-test and a significant difference was found between the mean pre and posttest scores (mean difference - 35.6; S.D. 11.2, $t = -10.54$, $p < .001$). Comparison of pretest scores showed all posttest scores, with one exception, to be reduced to below 86, the numerical point for high communication apprehension.

Responses to "The program is beneficial because . . . ." (relaxing, helpful, assists in speaking, assists by visualizing) are summarized in Table 1. The responses to "I think my behavior is/is not changing in these ways . . . . " (ability to control anxiety when speaking, ability to relax, change in attitude, ability to visualize, ability to speak more often) are shown in Table 2. Table 3 shows the frequency of reported changes in behavior across time (ability to relax, ability to control anxiety, change in attitude, ability to relax, ability to control anxiety, ability to speak more often).

Discussion

The present study examined stages and objectives of a systematic desensitization program and its effects on subject reported apprehension levels and perceived benefits and behavior changes toward public speaking.

Initially, this SD program followed original behavior therapy techniques described by Wolpe and Lazarus (1966) in a pattern of relaxation, visualization, and a combination of relaxation and visualization designed to enable the subject to reduce fear of public speaking.

The significant difference found between the mean pre and posttest apprehensive scores indicates the successful use of SD in helping subjects to reduce communication apprehension. This finding adds support to the appropriate use of an audio-tape SD program for speech anxious individuals in combination with the basic speech course.

The compatibility of the process of SD for the reduction of communication apprehension, although no speech communication skills are involved, is shown in the benefits found in this study, "relaxing, helpful, assists in speaking, assists in visualizing." These benefits are in keeping with the "reciprical inhibition principle" described by Wolpe and Lazarus (1966), who state "if a response inhibitory of anxiety can be made to occur in the presence of anxiety-evoking stimuli it will weaken the bond between these stimuli and the anxiety" (p.12). These researchers describe how relaxation responses can be employed to bring about systematic decrements of anxiety-response patterns; elicit new bahavior patterns in the relevant situation; and progressively weaken a habit (in this case, communication apprehension) through the repeated nonreinforcement of the responses that manifest it.

The types of objectives and stages in this SD program presumably serve certain functions which contribute to intermediate states that, in turn, contribute to behaviors compatible with lowered communication apprehension. Consequently, perceived behaviors reportedly altered through the use of this SD program included "ability to relax, ability to

visualize, ability to control anxiety when speaking, change in attitude, and ability to speak more often."

Changes in behavior across time (six audio tapes) show an average progression of "ability to relax, ability to control anxiety, change attitude,ability to control anxiety, ability to relax, and ability to speak more". These findings show a workable progression of appropriate pedagogical speech techniques appropriate for both regular and apprehensive speech classes. The first step in the progression, relaxing muscles, can be accomplished inside and outside of class. After a list of relaxation techniques is distributed to students and practiced in class, twice daily individual practice will enable the students to learn relaxation techniques during times of tension.

Next, visualizing fearful scenes, or in vivo desensitization, has been recommeded by psychologists as a means of combatting various fears. Class discussion centering on concerns about speaking may relieve students of pent-up anxiety and third, help them learn to combine the relaxing with visualizing their own fearful speech scenes. As a result of combining the relaxing and visualizing, students can learn to control anxiety toward speaking. With control of fear will come a more positive attitude toward speaking. These short daily classroom relaxation and visualizing exercises will result in less fear and a more positive attitude toward speaking and, in turn, speech skill exercise will be more easily learned and exhibited by the students.

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Table 1

Responses to "The program is beneficial because..."

Categories	Mentions N	Mentions %
Relaxing	46	40
Helpful	32	28
Assists in speaking	26	23
Assists by visualizing	11	9
Total	115	100

Table 2

Responses to "I think my behavior is/is not changing in these ways. . . "

Categories	Mentions N	Mentions %
Ability to control anxiety when speaking	33	43
Ability to relax	19	25
Change in attitude	9	12
Ability to visualize	9	12
Ability to speak more often	6	8
Total	76	100

Table 3

Frequency of Behavior Changes Across Time (tapes)

	Mentions											
	Tape 1		Tape 2		Tape 3		Tape 4		Tape 5		Tape 6	
Categories	N	%	N	%	N	%	N	%	N	%	N	%
Ability to relax	10	39	6	24	5	19	4	20	7	27	5	19
Ability to control anxiety	5	19	7	28	9	35	9	45	4	15	10	39
Ability to visualize	1	4	2	8	2	8	0	0	4	15	0	0
Change in attitude	5	19	7	28	4	15	1	5	4	15	6	23
Ability to speak more often	5	19	3	12	6	23	6	30	7	27	5	19
Total	26	100	25	100	26	100	20	100	26	100	26	100